

“Build Operate Transfer: a model for maintaining Abidjan’s markets as places of urban vitality”

**A Thesis Presented to the Faculty of Architecture, Planning and Preservation
COLUMBIA UNIVERSITY**

**In Partial Fulfillment
of the Requirements for the Degree
Master of Science in Urban Planning**

by

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May 2020

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Chapter I: Marketplaces in urban planning theory

Introduction:

The market is at the heart of the city. An area of the convergence for people, products, produce, and planning, the market offers a space for the logics of sociality to take shape into urban vitality. While top down planning policy has delegated the role of market management to municipalities, innovative partnerships such as the Build Operate Transfer model provide avenues for cooperation between the public and private spheres as well as synergy in terms of market management. On the ground, the fiscal restraints of municipalities can be unshackled by the financial contributions of private enterprises. Issues of environmental management as well as taxation are thus able to be tackled as a means to improve the market for its users rendering the market efficient. As such the characteristics of urban vitality in markets in West Africa rely on a market's efficiency through the incorporation of sustainability as well as economic value capture of returns in addition to the dynamic and animated throng of people who keep the market alive.

Background:

According to Weber, a city is a place where “the resident population satisfies an economically important part of its daily needs in the local market, and to a large extent with products which have been produced or otherwise obtained for sale in the market by the residents” (Weber, 1922) of the city. Research on marketplaces have led to a deeper understanding of the structure of the city (Bourne, 1971; Song & Taylor, 2018; Bertoncello & Bredeloup, 2002; Unlu-Yucesoy, 2013) as a whole. Although defining the city as inextricably linked to the marketplace has been limited to Weber's work in *Economy and Society* (1921), the definition of the market itself as a place of vitality (Maas, 1984; Unlu-Yucesoy, 2013; Jordan, 1977) is significant. Furthermore, the

marketplace has been defined as a space of economic production (Hill 1966; Ekechi & House-Midamba, 1995; Meillassoux, 1971), however, the marketplace as a public space capable of social production (Watson, 2009; Low, 1996; de Certeau, 1984; Morales, 2011) has been emphasized as equally important.

In West Africa, markets in urban centres thrive as a source of commerce, exchange, and social gathering. The dichotomy between both urban realities can be linked to the fact that marketplaces are traditional in West Africa (Hodder, 1965) which has led to their preservation within societies in the region. Among the most prominent markets are Idumota in Lagos, Makola in Accra, Sandaga in Dakar, and Adjame in Abidjan. In the West African context, the history of markets is longstanding (Hodder, 1965; Meillassoux, 1971) and markets are vital to the healthy functioning of the wider city which renders markets places of urban vitality. In Abidjan, urban markets whether they are open-air markets or enclosed markets are crucial to the economic functioning of the city. Abidjan's markets are central to economic exchanges and social interactions (Babo, 2013) in the urban space. Spatially vast markets in Abidjan go beyond as they sell a plethora of products that fulfill everyday needs of Abidjan's urban dwellers. When markets are planned, built, and central to cities as is the case in many West African cities such as Abidjan, the dialectic revolves around the intensity of market exchanges. In that sense, urban socio-spatial practices that place markets at the heart of cities are culturally tied to West African logics of market integration into the urban fabric rendering markets locations of urban vitality. Markets thrive on large amounts of people thus the "size and density of the crowd signifies the amount of attraction" (Maas 11, 1984) a market will sustain. Attraction to marketplaces is central to the premise that they are locations of urban vitality. A complex term, urban vitality "normally refers to a phenomenon epitomized by European market-places, Eastern Bazaars, and city areas

offering a variety of trading, socializing and experiential opportunities” (Maas 3, 1984) which means there is an inextricable link between the term urban vitality and West Africa’s bustling markets. Understanding the intricacies of how West African markets are vital spaces captures the importance of their preservation through time. On the one hand, a West African market such as Adjame market imbues vitality due to the sheer number of people who go to and from the market every single day. Overall, “with the exception of specialised (such as livestock) markets, it seems to be a general rule in Africa for daily markets to occur only in the very largest centres of population” (Hill 448, 1963) of African cities. On the other hand, the Adjame market’s vitality stems from its status as a central node of sociality within the city space. In practice, the marketplace is a “a special type of urban space, a peculiar zone in which all participants experience what makes the public space central, shared, and sociable” (Unlu-Yucesoy 200, 2013) through continuous interaction and exchange. The dialectic between the marketplace as a place of spatial vitality and the marketplace as a place of social vitality results in Abidjan’s markets being spaces of urban socio-spatial vitality where both the intensity in human agglomeration and the intensity in social practice reveal marketplaces as loci of urban action. In addition to providing vital resources such as food, clothing, and even unregulated medicine despite Ivorian laws (Aka & Legris, 2005), the Adjame market provides a social network of buyers and sellers who meet in one place recognized by all. The world over, markets are bustling centres of social interaction (Ünlü-Yücesoy, 2013; Hiebert, Rath, and Vertovec, 2015; Watson, 2009) and exemplify intense socio-economic activity. Furthermore, the social, economic, and cultural practices of markets influence the ways in which the built environment is experienced and created.

A crucial trend in cities is one where marketplaces the world over are becoming obsolete due to the rise in built supermarkets worldwide as well as in the case of developed countries the rise of e-commerce. In West Africa, markets remain central to urban centres as key drivers of economic exchanges and catalysts to social interaction despite the rise of supermarkets which have yet to rival markets. Both central to the city space and central to the social collective consciousness of urban dwellers, markets must be preserved over time and protected from disinvestment by municipalities. Indeed, markets are at the heart “of changing public-private priorities” (Unlu-Yucesoy, 199, 2013), therefore, subject to economic instability. In cities, the decline of markets (Schappo & van Melik, 2016; Gonzalez and Waley, 2013; Watson, 2009) is a process that encourages the urban planner to find innovative ways to revive markets in certain parts of the world. As a result, finding frameworks that enable the longevity of West African urban markets is crucial to maintain a socio-economic model of exchange that promotes thriving West African cities because marketplaces “stand at the core of the urban experience” (Unlu-Yucesoy 200, 2013) for urban dwellers. In Abidjan, top down models of market management which reigned after Côte d'Ivoire's independence in 1960 were superseded by markets managed under the Build Operate Transfer (Bertoncello & Bredeloup, 2002) market model. Initially, post-independence markets were commissioned by public entities (Bertoncello & Bredeloup, 2002) whose aim was to build markets that imbued structure, organization, and productivity in both form and function (Bertoncello & Bredeloup, 2002) as a means to attract buyers and sellers as well as to create economic surplus through market exchanges. In fact, half of the 45 markets built in Abidjan between 1988 and 2000 were managed under the BOT model (Poyau, 2005) which indicates the rise in the model. According to the World Bank, the Build Operate Transfer model occurs when “the public sector grantor grants to a private company the right to develop and operate a facility

or system for a certain period in what would otherwise be a public sector project” (World Bank – Public Private Partnership LRC) which would be managed by the municipality. In Côte d'Ivoire, the devolution of certain city management functions to municipalities from the State (Bertoncello & Bredeloup, 2002) led to municipalities seeking ways to increase their coffers as well as engage in private partnerships that are lucrative. In Abidjan, the goal of the BOT model is to absorb the initial capital investment (Bertoncello & Bredeloup, 2002) through a stage of private management of the market which is the operation stage. At its inception, the first market to be built under the Build Operate Transfer model was Adjame market's 'Shopping Abrogoua' section which was built by a private entity called the SICG (Bertoncello & Bredeloup, 2002). While on the one hand, the Build Operate Transfer presents financial management benefits to the city as well as a means for the city to increase infrastructure for market use, it presents costs as well. Indeed, private entities are out of scale with the everyday management of the market in terms of sanitation, organization, and tax collection which is thus left to the municipality whose inconsistencies in certain aspects of those tasks leave gaps in the overall management. While the economy of scale means that the benefits outweigh the costs of the Build Operate Transfer model for Abidjan's markets, the improvements in the costs can lead to better municipal coordination of markets both in Abidjan and West Africa whose position at the heart of cities is central to the vitality of the urban environment. In the case of markets in Abidjan, the role of the Build Operate Transfer model has been extensively documented (Bertoncello & Bredeloup, 2002; Poyau, 2005). However, understanding the mechanisms of the Build Operate Transfer model that engender and maintain vital markets has yet to be explored before the proceeding research endeavor. Understanding the role of the marketplace within processes of colonialism and historical trade in West Africa has been documented (Hodder, 1965; Meillassoux, 1971),

however, the role of the market post-independence in West Africa has yet to be thoroughly investigated. Indeed, the ways in which the market post-independence embeds itself in logics of rapid urbanization and high commercial productivity is an avenue the research explores.

Methodology:

As the thesis is qualitative in nature, I employ a comparative approach in order to solve the question regarding specifically whether the Build Operate Transfer model for markets presents more advantages than a market solely managed by a municipality. In the marketplace, two indicators reign as windows into the nature of the interactions that take place on the ground. On the one hand, the sociality of the market is central to its engagement of a myriad of people over long periods of time. On the other, the spatial dimension of the market captures the capacity for a space to function efficiently on a mass spatial scale without extensive external choreography of the space. As a result, “social-spatial differentiation and identification in public spaces is the primary intersection between the individual and the city” (Unlu-Yucesoy 199, 2013) from an epistemological perspective. In the case of the spatial dimension, the principle difference between a Build Operate Transfer model market and a regular market is the spatial characteristic. Indeed, all Build Operate Transfer model markets are buildings whereas the majority of markets that were originally built by the Ivorian government and Abidjan’s municipalities as a space that is intended to be managed by the municipality involved an open-air space with market stalls. From that spatial starting point which I experienced when I went to the market, I undertook structured and open-ended interviews as a means to supplement the analysis of literature on the differences in terms of market management between a Build Operate Transfer model market and a market solely managed by the municipality within the Adjame context. In addition, the 7

structured and open-ended interviews I conducted were informative in nature as they provided details of the variations between a BOT market and a market managed solely by the municipality. In that sense, my interviews were not used as a means towards conclusive research ends but were used as a means to provide factual as well as descriptive similarities and differences between both modes of market management. As a result, I have extracted key historical, organizational, spatial, and policy-based differences that define both systems of market management. In that sense, a portion of the research endeavor involves a form “comparative urbanism” (Hannerz 8, 1980) of Build Operate Transfer markets and open-air markets the latter which were originally planned to be managed by the municipalities in Abidjan. I interviewed various stakeholders in the Adjame market context including open-air Adjame market vendors (1), Forum des marchés market vendors (2) which is a BOT type market building, small business owners within the Adjame market and adjacent to an open-air market (1), the Adjame market municipality authorities (1), the FENACCI (1) which is the national federation of Côte d'Ivoire's merchants that works closely with the Adjame market in terms of market management and serves as an association for market vendors, and the BNEDT (1) which is a national institution that works on Côte d'Ivoire's development. I conducted an interview within the BNEDT's urban planning department.

Once the interviews revealed the principle differences in terms of market management modes, I undertook short-term participant observation in order to experience Adjame market both in terms of the open-air market submarkets as well as the Build Operate Transfer model market building with a focus on the Forum des marchés building as a means to begin to draw conclusions regarding which market presented more advantages for urban vitality. Overall, short-term participatory observation is a hallmark of the research endeavor given the nature of the urban

context I study. Indeed, my aim has been within a short time frame to research “predominantly qualitative, richly contextualized accounts of human [...] action” (Hannerz 8, 1980) within the Adjame market. Through my observations, I concluded that the high levels of social activity due to a dense population as well as a social public space exist in both types of markets which means both markets imbue urban vitality. I set out to conceptualize urban vitality as a term within urban planning theory. As a concept, urban vitality has been characterized by “relatively dense [...] pedestrian population, which animates certain city areas, almost continuously, throughout each day and evening” (Maas 19, 1984) therefore markets in West Africa exemplify urban vitality. Indeed, urban vitality is a characteristic central to markets worldwide. For instance, Jordan’s description of Istanbul’s Bazaar as a place of “chaotic vitality” (Jordan 120, 1977) is characterized by a spatial reality where “shoppers pack the tiny streets leading to the 500-year-old covered Bazaar” (Jordan 120, 1977) which is the term used for a market. In that sense, conceptions of urban vitality reflect the socio-spatial aspect of markets. I confirmed that the preliminary short-term participant observations I conducted at the Adjame market were in line with literature about the concept of urban vitality of density and heightened social interaction within markets which led to defining the structures that uphold and maintain urban vitality through market efficiency. Defining the tenets of market efficiency involved undertaking short-term participant observation during which I observed significant levels of pollution in the form of littering as well as high levels of commercial transactions.

I concluded that market efficiency is defined by the ways externalities function in a given marketplace. In my research study, externalities are any effects on the city, urban context, and urban dwellers. Both types of management present positive externalities primarily high levels of commercial transactions as well as economic production, social action, and city spatial

organization. Furthermore, both forms of management present negative externalities primarily littering and poor solid waste management as well as a lack of management by the municipality which leads to market environmental deterioration. My interviews with the municipality of Adjame yielded an understanding of the common externalities in the market that both systems of management present. Based on the insights yielded from the Adjame market case study, a market is efficient when there is a combination of low levels of littering causing pollution and high levels of commercial transactions leading to economic productivity for the municipality. In turn, a market is efficient when there are high levels of positive environmental health conditions and low levels of economic loss for the municipality from the commercial transactions that take place in the market. As a result, the Build Operate Transfer model presents more advantages in comparison to markets managed solely by municipalities in Abidjan due to the fact that when a private entity is involved in market management due to the Build Operate Transfer model the positive externalities of economic productivity are amplified while the negative externalities of poor environmental management are minimized. The BOT model provides avenues for regular environmental health management of the market through the outsourcing of cleaning to a private maintenance company and the avenues towards a more strict private as opposed to public tax collection process at vending stalls which ensures high revenue to the municipality from the commercial transactions market vendors receive as opposed to a tax collection process managed by the municipality which has proven inefficient in delivering high levels of economic return to the municipality. In markets such as Adjame, externalities are amplified due to the extensive spatial scale. In addition, given the spatial complexities of the marketplace as well as the interconnectivity of the actors in the market space, externalities are continuously present, and their effects continuously experienced by market users. As a result, externalities reflect the “co-

presence” (Unlu-Yucesoy 200, 2013) aspect of the market where the interactions of people and the effects create a symbiotic system that is the foundation of the marketplace. According to Papageorgiou’s analysis, an externality that is embedded in spaces such as markets is a “spatial externality” (Papageorgiou 465, 1978) as the logics of the externality take form in a physical space. Given the socio-spatial similarities to other large West African cities where markets are at the heart of the city, the Build Operate Transfer model can benefit other markets across West Africa in supporting their characteristic as places of urban vitality. On the scale of the city, the Build Operate Transfer model specifically advances urban economic prosperity given the economic advantages of the municipality sharing the financial burden of construction and operation with a private company which is a characteristic that renders the Build Operate Transfer model more advantageous. From the perspective of holistic urban planning, spaces of urban vitality thrive on the condition of being sustainable spaces as well as spaces of prosperous economic productivity. In the case of the Adjame market issues around poor solid waste management and the lack of efficient tax collection are reflected in both markets the BOT markets and the open-air markets, however, the BOT model presents ways to overcome the aforementioned barriers to create a more sustainable and economically prosperous marketplace. Defining market efficiency as low levels of pollution and high levels of commercial transactions provides a metric to understand which market is more advantageous to overall urban vitality and encourages the urban planner to address issues of poverty with a comprehensive approach as well as environmental health in dense public spaces from a perspective of theory and practice. In an effort to place new findings within frameworks of urban planning research I have used existing literature as the basis of the research weaving concepts and ideas into the thesis.

Literature review:

Despite efforts by “the occasional anthropologist or two” (Good 769, 1973) who worked on African marketplaces, the topic of markets attracted “serious scholarly attention” (Good 769, 1973) in the 1960s and 1970s. In particular, the question of market management in terms of “authority” (Hill 296, 1966) is an important subtheme to the general theme of markets in Africa. According to Hodder (1965), a market management entity is crucial as the need for a “political organization to maintain the security of market trade” (Good 772, 1973) determines the longevity of a market. In that sense, an organization such as a municipality must oversee and manage a market according to Hodder. In a similar way, Hill asserts that a market authority must preside over the market. For instance, “the grant of a market was a royal prerogative, and was sometimes conceded to towns or individuals, though usually to the church” (Hill 296, 1966) who subsequently managed the market in the “medieval England” (Hill 296, 1966) era. In their thesis, Hill takes into account the possibility of public-private partnerships such as the Build Operate Transfer model as they acknowledge that researchers “should avoid assuming that in West Africa there has usually been sole market authority, for there have sometimes effectively been several authorities associated, for instance, with different functions or interest” (Hill 297, 1966) as is the case in the BOT model where the private entity temporarily manages the market due to their interest in the initial investment effectuated to build the physical market building. The Build Operate Transfer model as applied to markets in Abidjan is the center of Bertoncello & Bredeloup’s thesis. In addition to providing the historical, economic, and fiscal framework through which the BOT model arose in Abidjan, the authors tackle the lack of financial inclusion of the BOT model given that a select few vendors can afford the rent for a stall in markets that were built under the Build Operate Transfer model. Central to Bertoncello & Bredeloup’s thesis

is the polarity between markets managed by the municipality and markets managed by a private enterprise under the Build Operate Transfer model which they define as a historical and economic transition adopted in Abidjan. From the perspective of their work, BOT type markets are detrimental to inclusive commerce despite their dominance as a new mode of building markets in Abidjan due to their financial accessibility for municipalities who lack proper funds to engage in the building process. In their work, Schappo & van Melik address the concept of partnerships between stakeholders within the marketplace at the level of market organization. In addition to studying issues related to market management, current literature addresses the on the ground maintenance of markets from both an economic and environmental perspective. Indeed, the dialectic of environmental management and fiscal management of the market is addressed by Hill as they describe that market authorities have “rights” (Hill 296, 1966) and a “responsibility” (Hill 296, 1966) to market users. On the one hand, market authorities have an array of rights which encompass “charging tolls (on produce) and rents (on stalls)” (Hill 296, 1966) which can be considered a form of tax collection. On the other hand, the responsibility rests on the shoulders of market authorities to ensure the “maintenance and cleanliness of the market” (Hill 296, 1966) regularly. In practice, certain markets are better suited to tackle the challenge of environmental degradation and pollution than others. Equally, certain markets are better suited to tackle the challenge of efficient tax collection as a means to create revenue for the city than others. In the Hague Market in the Netherlands, Schappo & van Melik observe that partnerships are the way forward to better environmental management of markets, therefore, markets that adopt partnerships whether they are public-private partnerships like the BOT model or other types of partnerships are better suited to manage pollution and improve the environmental conditions of the market. In fact, partnerships in the Hague Market take the form of “the use of a

cleaning service provided by a local, social-oriented company that aims to provide opportunities for relatively unemployable young men who experience a large social distance to the labour market” (Schappo & van Melik 328, 2016) in the Hague. In a similar way, Poyau addresses the challenges surrounding market environmental management in Abidjan. According to Poyau, the “insalubrious” (Poyau 117, 2005) markets in Abidjan reveal gaps in terms of environmental management strategies on the part of the municipalities. In that sense, markets that lack strong municipal environmental health strategies suffer from pollution, littering, and excessive solid waste meaning they are worse off in terms of their capability to manage environmental conditions in the market. According to Song & Taylor, the more vending is conducted in an unstructured way the more vendors suffer from the “lack of urban amenities or services and of market opportunities” (Song & Taylor 229, 2018) which hinders commercial transactions and as a result economic opportunity which means that some markets are better suited for extended commercial transactions than others particularly markets attached or within infrastructure like a building such as Build Operate Transfer markets. Market models such as the Build Operate Transfer model are reflections of “collaborative planning approaches that prioritise public engagement, multi-sector partnership” (Song & Taylor 230, 2018) which are according to Song & Taylor “more successful” (Song & Taylor 230, 2018) in creating well managed markets which results in favorable environmental health conditions and increased commercial transactions. In terms of structure, the BOT market is such a multi-sector partnership. As a research endeavor, the work dissects the existing dichotomy between the municipality as a market manager and the private entrepreneur as the market manager as part of the Build Operate Transfer model. In particular, the research provides new avenues of analysis as it further conceptualizes the term urban vitality which has been attributed to markets worldwide in academic literature to include the effect of

issues discovered in markets functioning within the context of rapid urbanization regarding economic and environmental externalities in markets. While the research acknowledges the issue of market financial inaccessibility in terms of market stall rent in BOT type markets in Abidjan addressed in current literature, the research ventures beyond that stance to explain the merits and advantages of the Build Operate Transfer model for markets in Abidjan. Through comparative analysis, the research proves that issues of inefficient tax collection and poor environmental conditions are exacerbated in markets solely managed by the municipality, therefore, the Build Operate Transfer model provides avenues for markets to maintain their characteristic of urban vitality through strategic market efficiency.

Chapter II: The comparative dichotomy between Build Operate Transfer markets and open-air markets as places of urban vitality

A) Open-air markets as the origins of markets in West Africa and Abidjan

From a spatial perspective, open-air markets are considered a candidate for being the “earliest form of public activity in the world” (Bahrdt 26, 1977). In particular, formal markets in West Africa may have been the result of factors relating to a high population density. In Yorubaland which today consists of Benin, Nigeria, and Togo the population density was “fifty persons to the square mile” (Hodder 103, 1965) which was a threshold point at which formal markets arose. According to Hodder, the market logics of Yorubaland are similar to many “West African communities [...] among whom markets are commonly traditional” (Hodder 100, 1965) and significant. Today, the average population density is “66 people per square/km” (Worldometers) in West Africa which means that in total the population density is 172 people per square mile consisting of an additional 122 people per square mile rendering markets in West Africa even more prominent. Among the most prominent markets are Idumota in Lagos, Makola in Accra, Sandaga in Dakar, and Adjame in Abidjan. At their inception, markets had an unsettled nature hence the “periodic markets” (Hill 300, 1966) that dominated commercial exchanges at a time where West African regional trade (Bertoncello & Bredeloup 84, 2002) was at its peak. During colonial times, itinerant markets were replaced by “permanent structures imposed by the colonizer” (Bertoncello & Bredeloup 84, 2002) and controlled by the colonizer as a way to assert spatial dominance. Markets thrive on large amounts of people thus the “size and density of the crowd signifies the amount of attraction” (Maas 11, 1984) a market will sustain. In Abidjan, formal markets are connected to logics of urban agglomeration which build on population

density. Each one of the 10 communes in Abidjan has a formal market as municipal governance measures emphasize the importance of market accessibility to the entire population of Abidjan. In cities around the world, markets “were often located at the heart of urban settlements, surrounded by institutions of power” (Schappo & van Melik 319, 2016) in a similar way to the Abidjan market placement model particularly in the case of Adjame where the market is adjacent to the Adjame municipality office building. Central nodes, markets facilitated trade in West Africa. For instance, in Côte d'Ivoire there is a discrepancy between the amount of markets in the south of the Gouro region and the amount of markets in the north of the Gouro region according to Hodder (1965) which is due to the historical lack of “active trading agents in the south” (Hodder 102, 1965) through time. In addition to high population density, the theory that markets in West Africa were formed on the basis of “external or long-distance trading contacts” (Hodder 102, 1965) explains the centrality in location of markets in West Africa. Furthermore, the region as a whole is spatially central. In turn, “the great concentration of traditional markets in West Africa” (Hodder 102, 1965) is due to “the geographical position of the region in relation to the Guinea coast in the south and the trans-Saharan routes to Barbary in the north”(Hodder 102, 1965) that remain central to trade, exchange, and commerce. The character of vitality attributed to marketplaces in West Africa stems from both spatial factors of population density and central situation.

Overall, “with the exception of specialised (such as livestock) markets, it seems to be a general rule in Africa for daily markets to occur only in the very largest centres of population” (Hill 448, 1963) which are characterized by their centrality in terms of location and their density in terms of population. If markets in West Africa are at central nodes characterized by a high population density, then they are spaces of urban vitality. Indeed, although many tools exist, the tool that is

the most salient and among “the most reliable barometers for measuring the vitality of a city heart is the number of core participants” (Gruen 60, 1964) which alludes to a high population density in relation to areas in the periphery. In relation to the wider context of the city, markets are at the heart of the city because of their centrality as well as the high density of the population. Without people, the city cannot function. As a result, places of high population density exemplify an active city with an active heartbeat. In a similar way, desolate places in cities are said to be in need of revitalization. In spaces that need revitalization, the goal is to increase the population density through economic incentivization and improvements to the built environment. In vital spaces, however, systems work seamlessly. Indeed, without the “link” (Elyachar 455, 2010) between “a buyer to a seller, then a market cannot function” (Elyachar 455, 2010) properly. In that sense, the market must be a vital space based on a system of exchange that is fueled by the urban population. In the district of Abidjan, there are 10 communes each with a major market that provides vital goods to people from the commune. On the ground, megamarkets in Abidjan are “space competitive” (Good 769, 1973) which means that they follow “a locational pattern” (Good 769, 1973) that reflects the “uniform distribution” (Good 769, 1973) of the 10 communes. Two communes dominate in terms of how far reaching their major markets span. In the center is the market of Adjame and to the south is the market of Treichville. Both markets are supplemented by smaller markets. In fact, the markets structure a city where there is a polycentric spatial reality (Bertoncello & Bredeloup 95, 2002) due to the various communes with their own municipalities. In addition, Weber’s definition of the market within the city space whereby residents obtain produce themselves to sell in the market is the reality in the context of Abidjan where “cultivation sites [...] on the periphery of Abidjan” supply markets in “the neighborhoods of Plateau, Cocody, and Adjame in the center of the city”

(Babo 102, 2013) of Abidjan. In all markets, the respective municipalities collect taxes. Market vendors must pay a regular tax and an entry price to occupy a stall in the market. Markets are financial investments made by the municipality as a means to serve city dwellers with their everyday needs.

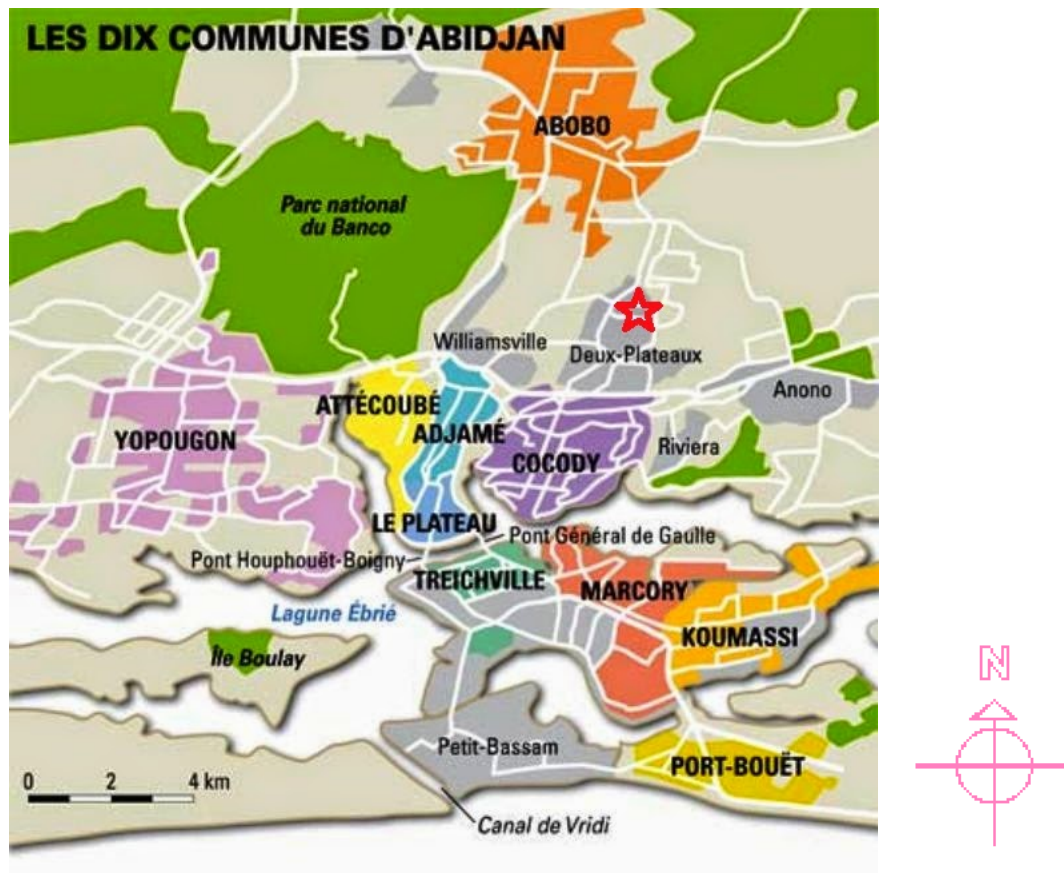


Figure 1: Abidjan's 10 communes. Source: AIBEF and John Hopkins Bloomberg School of Public Health (Bill and Melinda Gates Institute for Population and Reproductive Health)



Figure 2: Vendors on boulevard Nangui Abrogoua adjacent to the Adjame market

In the context of rapid urbanization, Abidjan's markets provide spaces for commercial exchanges beyond the confines of a single supermarket building making way for mass urban commerce. In all senses, the market spaces in Abidjan such as the Adjame market are regimented by the municipality as well as enforced by the municipal police, therefore, while the space is vast the delineations are clearly fixed. For instance, the main arterial that feeds into the Adjame market is the Nangui Abrogoua boulevard which is a bustling thoroughfare that has a multitude of taxis on the road as well as bus stops on the median that provide market accessibility.



Figure 3:
Bus at Adjame
market

While on the one hand, strict enforcement of the market's spatial boundaries by the Adjame municipal police is a way to protect the pedestrian population from encroachment onto pedestrian walkways, enforcement also provides a way for the municipality to control the market's expansion as opposed to that role being delegated to market vendors in the case of open-air markets. In cases around the world, the verdict is that vending with the lack of a formal marketplaces can lead to vendor saturated public spaces. As a result of occasional encroachment, Abidjan's municipality built secondary markets to "provide essential products to residents living in marginal communities where accessibility is low" (Bertoncello & Bredeloup 85, 2002) rendering the role of markets at a closer proximity crucial. The aforementioned vending is on the most part small scale as the large-scale vending that takes places in large West African markets is far reaching. For instance, the Adjame market itself spans 60% of the commune of Adjame (RTI, 2018) which is a testimony to the market being considered a megamarket.



Figure 4: Adjame's submarkets

As a result, the market itself is spatially significant. Within the Adjame market the myriad of submarkets engulf the space with people, goods, and exchanges. Each market is part of a whole yet carries a distinct spatial character. For instance, the Black Market which is entirely lawful is a place where buyers can purchase technology products at significantly lower prices than the actual market rate. Furthermore, Petit Lomé emulates the name of the Togolese capital taking into account that fact that vendors from the various corners of West Africa find themselves selling products in the Adjame market. In essence, the latter fact truly captures the market as a place of intersection that attracts a large amount of people for commerce and trade purposes. Indeed, historically “markets were often located at junction zones” (Hodder 99, 1965)

particularly in Yorubaland where the inception of markets has been studied. In particular, junction zones are the intersection of “complementary zones” (Hill 449, 1963) and “productive zones” (Hill 449, 1966) which Meillassoux believes is the exact place where there is a “tendency for markets to be localised” (Hill 449, 1963) in the context of West Africa. As a market, Adjame exemplifies the aforementioned theory. Primarily, Adjame as a municipality is at the centre of Abidjan serving as a junction of the various municipalities of Abidjan. Equally, the Adjame market is thus located at a junction zone. Furthermore, the market is at the intersection of complementary zones as the constellation of submarkets are all of the same category in the built environment as they are distinct markets with their own character. Additionally, the submarkets are productive zones as they are locations of intense commercial exchanges where economic productivity is intensified.

B) Build Operate Transfer markets as complementary enclosed markets

Before the 1990s, open-air markets in Abidjan were “built and managed by the Ivorian government and local municipalities” (Poyau 111, 2005) whose role was to ensure the efficient functioning of each market. In the 1980s, the Ivorian government “built large markets such as [...] Belleville, and Port-Bouët” (Bertoncello & Bredeloup 85, 2002) as a means to establish revenue produced from markets as a significant financial asset to the Ivorian economy. Additionally, local municipalities “borrowed exterior funds” (Bertoncello & Bredeloup 85, 2002) in order to build “secondary markets” (Bertoncello & Bredeloup 85, 2002) which complemented the large-scale markets aforementioned.

When the Ivorian state began building markets with revenue from their own coffers, the goal was that markets would have a “monument like nature” (Bertoncello & Bredeloup 84, 2002) within Abidjan’s built environment. Since 1994, the Build Operate Transfer model is used when a commune builds a market (Bertoncello & Bredeloup 88, 2002) in Abidjan. Furthermore, the majority of the markets built under the Build Operate Transfer model were physically built and inaugurated in the early 2000s. Indeed, among the 45 new markets built in Côte d'Ivoire between 1988 and 2000 (Bertoncello & Bredeloup 83, 2002) over half were managed by a private entrepreneur (Bertoncello & Bredeloup 83, 2002). The Build Operate Transfer model was implemented in Côte d'Ivoire in many various sectors and industries in the 1990s based on the US system of BOT (Bertoncello & Bredeloup 88, 2002) which was adapted to the local context. While post-independence ambitions after 1960 led to the Ivorian state taking on the role of building cities such as Abidjan from the ground up, the BOT model employed a private entrepreneur which presented contentions in terms of removing the responsibility from “mayors as regulators and managers” (Bertoncello & Bredeloup 84, 2002) of the marketplace. Today, Côte d'Ivoire’s main airport Felix Houphouët Boigny was built as a Build Operate Transfer infrastructure project as well as one of cities largest bridges the Pont HKB (Henri Konan Bédié). The overall rise of purpose-built markets in Abidjan was phenomenal because in “the mid 1970s there were 27 markets resulting in one vendor for every 30 people” (Bertoncello & Bredeloup 85, 2002) in the city. Today, the amount of markets in the city has risen which has resulted in a lower ratio of vendor per person. In addition to the Adjame market, the markets originally built as Build Operate Transfer markets include “Koumassi, Marcory, Treichville, and Yopougon” (Bertoncello & Bredeloup 89, 2002) in the city.

In conjunction with the rise of markets built under the Build Operate Transfer model was also the Ivorian civil war (2002-2007). In order to respond to the rise of markets within the city of Abidjan “many cultivation sites emerged on the periphery of Abidjan” (Babo 102, 2013) to supply markets with fresh produce. During the civil war, however, market inaccessibility was an issue in so far as there were excessive security checkpoints between the city center of Abidjan where markets such as Adjame are located and the peri-urban areas where the production sites are located. After independence in 1960, the goal was to employ the brightest “architects and engineers to build markets that imbued order in the market sellers as well as ensured high productivity” (Bertoncello & Bredeloup 84, 2002) in the marketplaces in Abidjan’s communes. While sellers constitute a diverse group of people, Abidjan’s markets are dominated by women. In the context of West Africa, the historical legacy of markets has shaped a practice of “women as traders” (Babo 105, 2013) empowered by the practice of selling products and produce in markets. As entrepreneurs, the women at Adjame dominate the space where they decide prices, manage stocks, and dictate market exchanges. At the Adjame market, the Gouro submarket is entirely managed by women who formed a cooperative. In the case of the cooperative, the women manage the market as they collect taxes in order to give a portion of the revenue of the market to the municipality.



Figure 5: Forum des marchés
and its vendors



Figure 6: Megamarkets and markets in Abidjan in the 1980s. Source: Poyau, 2005

While markets across Abidjan are abundant, a select few markets such as Adjame, Treichville, and Yopougon are called megamarkets (or ‘grand marché’) as they dominate in terms of density, spatial extent, and amount of produce sold on a daily basis. Ingrained in the urban planning of Abidjan, the secondary markets were built in conjunction and proximity to “state commissioned housing projects” (Bertoncello & Bredeloup 85, 2002) as a means to increase market accessibility to residents of the housing projects. In terms of planning practice, secondary markets in Abidjan are a testimony to holistic spaces where housing and markets merge. From a fiscal perspective, a government’s investment in large scale housing projects that integrate commercial spaces as well as respond to the needs of residents on the ground in terms of

accessibility are costly. While the reality in West Africa is that markets are “characterized by the diversity [...] in management models” (Poyau 111, 2005) employed to maintain the market’s vitality, the Build Operate Transfer Model arose as a complementary form of market creation to the open-air market as well as an innovative form of market management due to an “economic crisis” (Bertoncello & Bredeloup 85, 2002) in Côte d'Ivoire as well as the resulting “weaknesses in municipal budgets” (Bertoncello & Bredeloup 85, 2002) which led to low national government and municipal coffers. By 2004, Abidjan had “10 markets built under the Build Operate Transfer model” (Poyau 112, 2005) which is characterized by a “public-private partnership where the concessioner finances, builds, and manages the market to whom the market belongs for the duration of the contract which averages 10 to 25 years” (Poyau 112, 2005) *sensu stricto*. During the operational period, the private entrepreneur must “contribute a royalty fee to the municipality annually” (Poyau 112, 2005) which must be honoured based on the terms of the contract. According to Bahrtdt, “the more clearly [...] the reciprocal relationship between public and private spheres are defined, the more ‘city-like’, sociologically speaking, is the life of a settlement” (Bahrtdt 27, 1988) and in the case of a Build Operate Transfer model market, the relationship between the public municipality and the private company is one of reciprocity and symbiosis in its ideal state. In that sense, the Build Operate Transfer model as applied to markets can provide a window into the theoretical definition of the city space as well as a pragmatic way to achieve an enhanced urban space. At the Adjame market, two submarkets are the result of a Build Operate Transfer model contract: Forum des marchés and the Black Market while the open-air markets complement both markets. In particular, the Forum des marchés which is one of the most well-known submarkets in Adjame has a surface of 20 650 square/meters. On the one hand, the Forum des marchés is a market that sells a plethora of

products ranging from food items on the bottom floor of the building to primarily clothing, jewelry, and cosmetics on the middle to top levels. Officially, the Adjame municipality signed the contract for the Build Operate Transfer deal in 1996. On the other hand, the Black Market is a lawful market that sells electronics that have been bought by the sellers first-hand. Signed in 1997, the Build Operate Transfer deal for the Black Market led to the construction of several ‘boxes’ or small shops that house sellers as well as provide protection for electronics from unfavorable weather conditions.

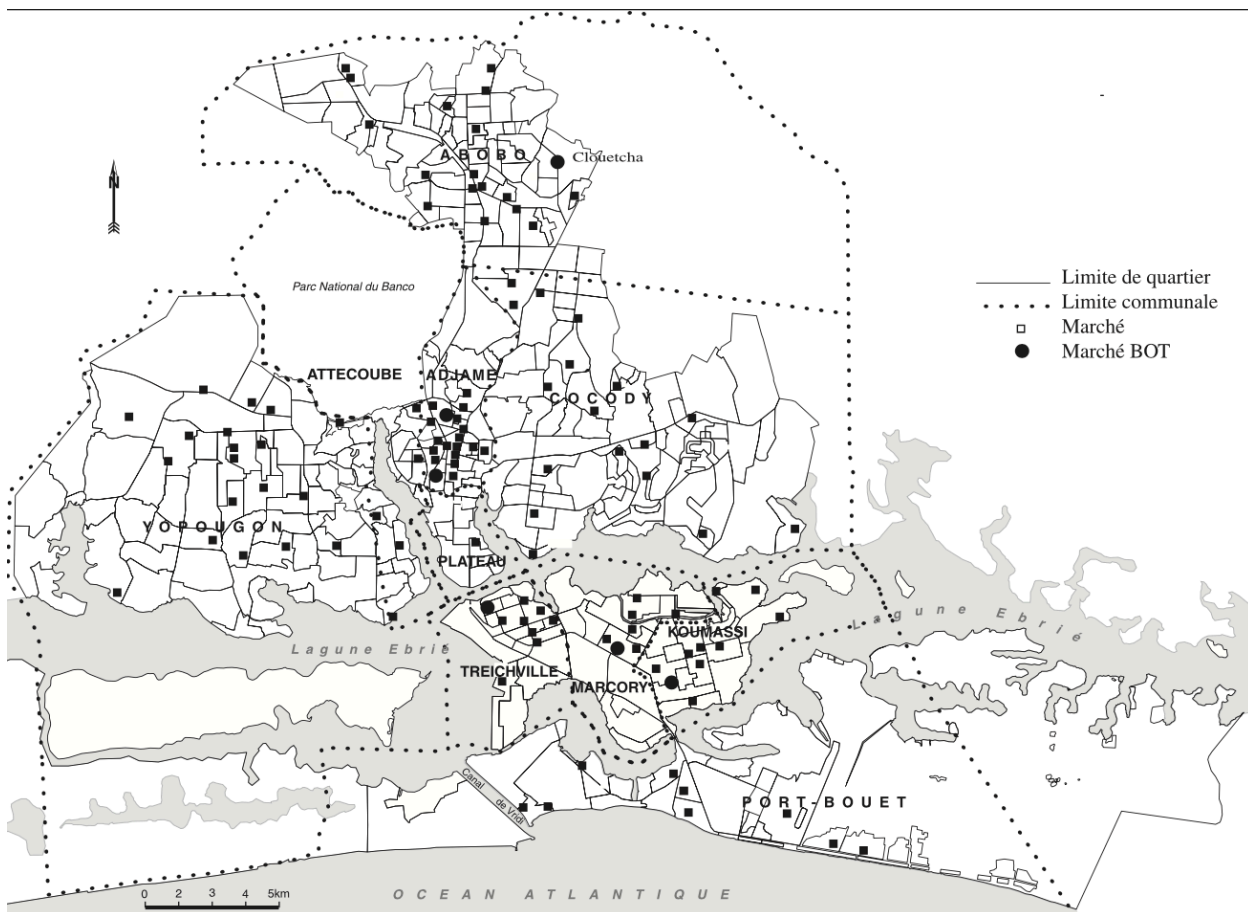


Figure 7: Markets and BOT markets in Abidjan in the early 2000s. Source: Poyau, 2005



Figure 8: Forum des marchés
entrance façade

In both Build Operate Transfer deals, the private entrepreneur is the SICG (Société ivoirienne de concept et de gestion) whose finances built both markets. As opposed to when the market is managed by the municipality, the BOT model engages the SICG as the principal market operator who sets market stall prices, collects taxes, issues attribution letters for market stalls, ensures the maintenance of the market environment, and ensures market safety. When the municipality is the only market manager the aforementioned tasks are completed by the municipality. According to Bahrtdt, the distinction between a “free” market (Bahrtdt 26, 1988) and a market that is not free is “when prices are manipulated by a market-controlling entrepreneur” (Bahrtdt 26, 1988) who manages the market as is the case in a BOT contract while a free market is characterized by Adjame market’s open-air markets. On average, experts at the FENACCI (Fédération Nationale des Commerçants de Côte d'Ivoire) estimate that 12 billion CFA is needed to build a market such as Adjame. At most, a municipality such as Adjame has a budget of 5 billion CFA, therefore, building a market is fiscally unaffordable. As a result, the Build Operate Transfer model provides an opportunity to build while open-air market construction is restricted due to the lack of an external private funding entity. In practice, however, the standardization in building design of the BOT market buildings offers few opportunities for human centred design and presents a stark contrast to the organic way in which people spatially occupy open-air markets. The BOT type buildings in Adjame are buildings with three stories with open views of the street outside the buildings as well as of the various levels within the building. At the outset, buildings that fit the Build Operate Transfer model typology were built for business and not for people. At its inception, the Forum des marchés had an empty third floor. In addition, the phenomenon of a lack of vendor presence on the top floors of market buildings when the buildings were originally built is not unique to the Adjame market. For instance, the Treichville market building which has

a similar design to the Forum des marchés had an empty top floor for an extended period of time after inauguration. The FENACCI's theory is that vendors and consumers alike were apprehensive about climbing up the stairs to the highest level due to a lack of familiarity with living in high elevation far from grade level. Although buildings designed with a multitude of levels increases productivity the building may not be used as planned due to its lack of human centred design thinking. As a means to increase the incentive to populate the highest level of the Treichville market, the municipality enacted a policy which involved subsidising certain costs for vendors if they were willing to set up a stall at the top of the building. As occupation of Build Operate Transfer model type buildings increased, vendors as well as consumers have familiarized themselves with elevation. Initially, the top floors were locations for the depot of goods while today they share that function with the presence of stalls for vending. In practice, market design may have positive effects or negative effects on vendors which may influence the ways they experience the marketplace. In a similar way, the market as a whole may produce positive and negative externalities which have an effect on the efficiency of the market.



Figure 9: Forum des
marchés levels



Figure 10: Forum des marchés at Adjame market (interior)

Chapter III: Markets, partnerships, and socio-environmental progress in city spaces

A) Market efficiency as the cornerstone of the maintenance of markets as places of urban vitality

Within the commune of Adjame, the Adjame market is a prominent center of social interaction and “social development” (Morales, 2011) in a dense urban space. Indeed, as Humphrey posits the “built environment” (Humphrey 40, 2005) can contribute to people’s “conceptual worlds” (Humphrey 40, 2005) when the built environment has a role in creating as well as preserving social networks. At the Adjame market, the Forum des marchés submarket is a bustling center where people sell goods by interacting with consumers from Adjame as well as communes around Abidjan. Considered by many as the largest market in West Africa, the Adjame market may also be attracting consumers from the West African region as a whole. In terms of its vendors, people from various countries such as Mali, Togo, and Senegal sell products at the Adjame market. Particularly, Adjame’s international population is a further factor that contributes to the urban vitality of its space as the social density stems from further afield than the boundaries of the city which creates an influx of people that is consistent as the places from where people are travelling to arrive at Adjame are varied and numerous. The overarching factor of Adjame in terms of its social remit is the fact that Adjame keeps society afloat. Without purchasing household items as well as essentials at Adjame, the majority of Abidjan’s households would be bereft of essentials. In that sense, the social wellbeing of communities across Abidjan rely on Adjame as well as various markets around the city such as Treichville and Cocody for their households to function. As a result, Adjame is thus vital to the everyday social needs of urban dwellers in the city of Abidjan rendering its urban vitality apparent.



Figure 11: Entrance of Forum des marchés

In practice, markets are “nodes of complex social processes” (Unlu-Yucesoy 190, 2013) where people form a sense of social belonging to one another as well as to the space where the market exchange as a social activity takes place. In practice, however, the social belonging is characterized by “incomplete integration” (Bahrtdt 28, 1988) where individuals have the agency to shape their social interactions which in turn is “the negative precondition of public activity” (Bahrtdt 29, 1988) theoretically. Indeed, markets are places where “producers and consumers deal with each other face-to-face over vegetables, eggs, or bolts of cloth” (Unlu-Yucesoy 192, 2013) which leads to more granular forms of sociality as “diverse strangers emerge and materialize social exchanges”(Unlu-Yucesoy 192, 2013) consistently within the marketplace.

Regularity and “periodicity” (Hill 295, 1966) in market exchanges is the basis upon which interactions become social within the marketplace. Given the lack of familiarity between actors, the social practices engendered by market exchanges such as asking for a price, describing produce, and observing others by walking in between stalls are the forms through which in a continuous fashion the market becomes a social space where “fleeting social contacts conducted according to strict rules” (Bahrdt 26, 1988) take place. As rapid urbanization takes over cities such as Abidjan, the risk of the social fabric becoming frayed and fragile is characterized by communities that are in continuous flux due to changing demographics. In addition, the phenomenon is exacerbated in West Africa by the lack of public spaces available to the growing population due to unregulated urban growth as well as sprawl; the former being places to enhance a sense of community as well as sociability. As a result, the risk is mitigated through places of “spontaneous social interaction” (Unlu-Yucesoy 199, 2013) where the fact that “cities are [...] increasingly threatened by social fragmentation” (Unlu Yuceroğlu 199, 2013) is overcome by the sense of social accessibility and interaction provided by the marketplace.

The process of rapid urbanization is synonymous with a process of urban diversification and “in a highly diversified city, marketplaces can be places of meeting for different communities” (Unlu-Yucesoy 199, 2013) to identify as one community as well as to identify with other communities. For instance, people from the Adjame commune may visit Adjame market while also interacting with people from the Cocody commune who may find that Adjame provides a wider selection of products than the Cocody market which proves the “vital connections of marketplaces to urban communities” (Unlu-Yucesoy 199, 2013) in the city. While a process of community building among individuals takes place in markets, the primary barriers to social

cohesion begin to erode because there is a “possibility of ignoring the social stratum to which these individuals otherwise belong” (Bahrdt 26, 1988) in society at large. For instance, social hierarchy barriers become less significant at the Adjame market as the crowd of buyers is a homogenous flow of people going to and from stalls, flowing into alleys towards other alley ways, and flowing from one submarket to another within the Adjame market. Indeed, “no one knows exactly how to classify the other” (Bahrdt 26, 1988) from a social hierarchy standpoint. While each buyer’s budget varies, the Adjame marketplace is affordable for most visitors as many of the products have prices that are inelastic due to the fact that they are vital to human needs, therefore, the habit of consuming many of the Adjame market products is constant. In that sense, people with varying positions in the social hierarchy meet at Adjame where they buy the same products for the same prices. While consumers are aware of the aforementioned fact, the process of distilling social markers of differentiation is considered as antithetical to the nature of the marketplace. For consumers at the Adjame market, the goal is to buy vital products with other members of the community whether they are from the Adjame commune or other communes across the city. Markets are stark representations of the “embodied practice of acknowledging heterogeneity and co-presence in the city” (Unlu-Yucesoy 200, 2013) as well as the acceptance of the other as a valuable partner for exchange. As a result, the combination of heightened sociality as well as density render markets places of urban vitality based on academic discourses and conceptualization. Indeed, the Adjame market embodies social production, interaction, and exchange with the backdrop of a dense and bustling urban area which is the conceptual characterization of urban vitality. While Adjame characterizes urban vitality as a concept, the dynamics of urban vitality within the context of rapid urbanization are bolstered by sustainability

as well as economic productivity as the pillars of market efficiency that sustain urban vitality within a market.



Figure 12: Open-air market and market building at Adjame

In a market that is efficient, economic productivity is high because there is a high level of commercial transactions. In addition, a market that is efficient is one where there are low levels of pollution because the environment is sustainable. Both high economic productivity and environmental sustainability represent a healthy city. In a thriving environment, people who exchange goods and services receive higher economic returns due to their transactions.

Furthermore, a thriving environment is characterized by low levels of environmental issues which hinder livability. In urban markets such as the Adjame market, the possibility for buyers and sellers to contribute to the city's economy as well as to Côte d'Ivoire's economy is tangible through their commercial transactions. Indeed, buying and selling a product leads to an economic contribution. In the marketplace, exchanges are intensified which increase the productivity of all stakeholders including the municipality. Through tax collection, the municipality is able to receive direct economic contributions from people who buy and sell in the market. In the former case, the economic contributions are indirect as people contribute to the overall economy without directly paying a tax but by buying and selling goods within the economic system of the city and the country of Côte d'Ivoire while in the latter case the taxes are paid by vendors directly to the municipality or to the private company in the case of a BOT market model. In both cases, the result is a positive externality produced by the market. Sustainability is the cornerstone of a thriving city. In cities where environmental issues are not addressed properly, a host of further issues affecting transportation and housing ensue. For instance, people will preferably want to live in environments that are well maintained. In other cases, vehicles that pollute pose a problem to city dwellers. In the case of Abidjan, markets are overall organized, and produce is safe. However, issues of solid waste management persist which mean that a thriving market like Adjame suffers from littering and pollution. Although the environmental issues at Adjame are not pernicious they affect the experience of the market. In addition, the lack of proper solid waste management reflects the lack of proper municipal management of the market. In fact, the environmental issue of littering represents a negative externality. Market efficiency is thus linked to market externalities because when the market produces negative or positive externalities, they affect the overall efficiency of the market as well as the city of Abidjan as a whole. In the context

of a market, market efficiency is a combination of heightened commercial transactions which lead to high economic productivity and low levels of pollution which leads to low levels of environmental degradation.



Figure 13: Fresh and healthy produce at the Adjame market

B) The socio-environmental advantages of the Build Operate Transfer model for market efficiency

A city is an interconnected system of processes that are co-reliant and co-productive. As a microcosm, the marketplace has intricate parts that work together towards “social production” (Low 862, 1996) and commercial production. Through the process of production as an activity resulting externalities both positive and negative arise. *Sensu stricto*, “an externality is an effect from one production activity that has consequences for another activity or set of individuals and is not reflected in market prices even where a market exists. Externalities can be either positive, when an external benefit is generated, or negative, when an external cost is generated from a market transaction” (Gakidou et al, 2006) from an economic perspective. Despite the merits of analyzing externalities when making policies especially on the urban scale, “economic analysis has traditionally neglected to take into account how choice behavior depends on the spatial aspects of the environment” (Papageourgiou 465, 1978) thus it has “suppressed the ways external effects arise within a spatial context” (Papageourgiou 465, 1978) such as a market for instance. Furthermore, the theoretical physiology of a spatial externality is as follows:

“Consider a distribution of agents over some landscape S . Every agent emits an externality which diffuses somehow its impact to other agents in S . Thus every agent experiences a composite of externalities emitted by agents over S . We name this composite a spatial externality. If the externality diffusion process is nontrivial (in the sense that the level of a contribution to the externality changes with distance and/or direction from the source) then the level of the spatial externality at $s \in S$ (hence the entire distribution of the spatial externality in S) depends on the distribution of agents in S . Further, a distribution of the spatial externality in S

prompts adjustments which alter the associated distribution of agents. In this manner one obtains two interacting surfaces unfolding over the landscape - a population surface and an externality surface. The nature of such interaction depends on the nature of the externality diffusion process, in other words on the structure of the spatial externality.” (Papageourgiou 465, 1978)

From the perspective of the Adjame market, the landscape S is the marketplace composed of all the submarkets. The population surface is one of urban vitality due to high density in the market. Both positive and negative externalities are emitted by market agents on a daily basis which affect the market environment for all market users. As a result, the positive and negative externalities experienced by market users are spatial in nature thus they are spatial externalities. Thus the analysis extrapolates that if a spatial externality is diffused in a non-trivial way then where people are located within S in relation to the externality matters in terms of the effect of the externality. On the one hand, if one particular submarket A in the Adjame market is more polluted with littering than another submarket B the individuals in submarket A will further experience the negative externality of pollution than the individuals in submarket B as the contribution and effects of the externality differ based on the “distance and direction from the source” (Papageourgiou 465, 1978) which is the location where the littering in submarket A is the most intensified.

On the other hand, the “externality diffusion process” (Papageourgiou 465, 1978) is trivial when the contribution and effect to the externality does not change with the distance from the source. In the case of the positive externality of economies of scale resulting from high economic productivity on the extensive surface of the market, the spatial externality has a trivial diffusion process. If for instance the source of the Adjame market is the Forum des marchés submarket,

the myriad other submarkets are as productive producing economies of scale in a uniform way across the Adjame marketplace. In the case of the former externality, the “level of spatial externality at $s \in S$ depends on the distribution of agents in S ” (Papageourgiou 465, 1978) which means that the level of pollution and littering depends on where the people who have polluted at $s \in S$ are distributed within the market S . In the case of economies of scale, however, the distribution is trivial. The high productivity at $s \in S$ is comparable and quasi-equivalent to the high productivity at $s' \in S$ (Papageourgiou 468, 1978) which means that the high productivity in the Dabanani submarket for instance is comparable to the high productivity in the Kaolin submarket. Overall, spatial externalities are both spatial in nature and effect as their functioning “prompts adjustments which alter the associated distribution of agents” (Papageourgiou 465, 1978) in the marketplace. In that sense, the “population surface” (Papageourgiou 465, 1978) and the “externality surface” (Papageourgiou 465, 1978) function in synergy thus forming the structure of the externality. At their inception, the goal of the Ivorian government was to achieve markets that imbued structure both by “separating activities and functions as a desire to achieve order and sanitation [...] and hygiene” (Bertoncello & Bredeloup 84, 2002) by avoiding issues such as littering and pollution. In addition, the goal was to “create groups of sellers based on their craft as a means to enhance their visibility in order to better collect taxes” (Bertoncello and Bredeloup 84, 2002) in order to achieve high economic productivity and economies of scale.

The primary positive externality in the case of the Adjame market are the economies of scale from which vendors, the municipality, and the private company in the case of a Build Operate Transfer contract all benefit. Due to the density of the market there is a large consumer base which engenders a high volume of commercial transactions which in turn leads to market efficiency due to a high level of commercial transactions. As a result, the high productivity due

to the high volume of commercial transactions is distributed over a large surface given that the Adjame market is extensive. Economies of scale are thus the result of high productivity on a large scale both spatially and in terms of items sold. Overall, Adjame contributes greatly to the coffers of the municipality of Adjame, the city of Abidjan's budget, and the national economy. The Forum des marchés alone produces 8 million CFA in taxes (RTI, 2018) for the municipality of Adjame which is approximately 13 450 dollars. A monumental hindrance to the production of high revenue for the municipality, the city, and the national government is the tax collection process. Given that taxes are the main source of revenue from the Adjame market because it is precisely "in the largest urban centers" (Hill 310, 1966) such as Adjame where "substantial revenue is raised from stall rents" (Hill 310, 1966) in markets, an inefficient tax collection process presents challenges. Although 350 million CFA (RTI, 2018) are in circulation at the Adjame market every day, municipal officers believe that the revenue generated in tax collection does not reflect the amount of money in circulation. In practice, the municipality believes that when they are managing the market with municipally hired tax collector the process is not as efficient as it could be as revenue would increase drastically if the tax collection process were efficient.



Figure 14: Boulevard Nangui Abrogoua traffic

Issues ingrained in the tax collection process are an unwillingness to pay taxes, complaints from vendors about not having the funds for the tax on a given day, and the price of the tax being exorbitant. For one small stall or box, the daily tax is 150 CFA. As the stall expands in size, the price increases accordingly. From the perspective of vendors, taxes paid to the municipality represent expenditures for public purposes which means that the incentive to pay is less strident than when vendors as individual consumers purchase a good or service from a private entity. For instance, if a vendor enters a supermarket, fills their shopping cart, and goes to the till they must pay the sum



Figure 15: Produce transportation at the Adjame market

of their selected products. Failing to do so and carrying on with the products outside of the boundaries of the supermarket may result in arrest due to theft. If on the other hand, a vendor fails to pay their taxes on a given day in the market there is a chance their stall may be dismantled, however, depending on the leniency of the tax collector they may be allowed to continue vending until the next business day. In a similar way, when the market is managed by a private entity as is the case in a Build Operate Transfer contract, the market operates as a business which means there is a greater incentive for vendors to pay their taxes as they are engaging with a private entity as is the case in a supermarket. Although a share of the taxes

represents the royalty fee the private entity owes the municipality during their operation phase, the vendor primarily engages with a private tax collector who may engender a more efficient tax collection process than a public tax collector leading to increased market efficiency. While the tax collection process is fraught with issues, tax collection during a Build Operate Transfer contract or municipal management does result in positive externalities in the form of economies of scale. Furthermore, the revenue acquired from markets represent “a primordial resource for the municipal budget” (Bertoncello & Bredeloup 87, 2002) of Abidjan’s municipalities.



Figure 16: Adjame market solid waste

Negative externalities, however, exist in marketplaces. At the Adjame market, solid waste discarded in the market leads to poor environmental health conditions. Despite it being highly unlikely that a pernicious large-scale epidemic emanates from the market given the strict public

health standards enacted by the Ivorian government that are respected by urban dwellers, lower level pollution which seems innocuous remains an environmental health challenge in its own right.



Figure 17: Adjame market solid waste at proximity to produce

When the SICG managed the Adjame market, the private company generated the funds to hire a private company called the CIVOGE M in order to manage the maintenance and sanitation of the market. Today, the municipality lacks the funds to both hire a company such as the CIVOGE M although the CIVOGE M itself has gone bankrupt or to hire municipal workers to manage the market's sanitation and overall maintenance. A Build Operate Transfer contract mitigates the risks stemming from the negative externality of poor solid waste management as private funds can be mobilized to outsource sanitation and maintenance to a private company. In that sense, a

BOT type market reduces the level of pollution through the outsourcing of cleaning to a private company with the private company's funds. As a result, a BOT type market leads to market efficiency due to the achievement of low levels of pollution and a high level of environmental health of the market. Overall, municipal coffers do not suffice to manage the market's environmental maintenance leading to stark challenges in terms of environmental health.



Figure 18: Adjame market solid waste near businesses

According to Schappo & van Melik, the existing “potential of marketplaces in fostering integration through an above layer: a network or “organisational level” where partnerships are developed around the market’s existence bounding different stakeholders, groups and projects more deeply and structurally” (Schappo & van Melik 321, 2016) can be transformative for socio-political consensus in the market. Furthermore, partnerships at the above layer such as the Build Operate Transfer model can provide opportunities for the sustainability of the market environment as well as the economic productivity of the marketplace.

Conclusion:

The goal of the urban planner is to transform a city into a more livable, safe, and healthy environment for its inhabitants. In rapidly urbanizing cities such as Abidjan, achieving this goal means augmenting the positive externalities and minimizing the negative externalities that city spaces create. In an ideal city, all urban systems work without creating any negative externalities and positive externalities are always at their optimal state. In practice, cities are imperfect systems, however, tangible improvements are made when policies tackle the positive and negative externalities of the city system. In Abidjan, markets are prosperous, yet the lack of solid waste management increases the lack of sustainability in the city. Today, the Adjame municipality’s Mayor proposes that all vendors maintain the environment of their own space. In reality, the feasibility of this endeavor is uncertain. In the case where a group of vendors in one section of the market follow the injunction, the issue of homogeneity persists. In the event where certain market vendors do not maintain the environment around their stall up to the municipality’s standards, the market continues to deal with the challenge of improper solid waste management. While private entrepreneurs present in the Build Operate Transfer model have a tendency to increase market stall prices for vendors, they may also complete tasks in sanitation

and solid waste management that vendors may not have the capacity to manage on their own. Urban policies only take shape when the fiscal investment is sufficient to make the concept a reality. When private entities are integrated into urban policy, they may be able to contribute in ways that municipalities cannot due to fiscal restraints.



Figure 19: Boulevard Nangui Abrogoua from above



Figure 20: Traditional Ivorian fabric

In economies in West Africa, the narrative of underdevelopment has prevented success stories from being at the forefront. Although the region of West Africa is populated by people living under the threshold of poverty, markets offer an opportunity for economic empowerment and social mobility. Through market exchanges, buyers can contribute financially to the economy and sellers can make a profit. Furthermore, marketplaces in West Africa offer an opportunity for women to empower themselves financially as well as support their households. A fast-growing economy fills municipal coffers allowing for more investment in urban planning whether it is a new low-income housing complex or a public space where city residents can engage with their communities. The primary issue hindering Abidjan's municipalities from benefiting in an optimal way to their markets' economic power is the tax collection process whereby inefficiencies lead to discrepancies between the expected revenue and the actual revenue. In most West African cities, tax collection is a tangible way to increase economic revenue, therefore, innovative ways to improve tax collection processes such as collection oversight must be implemented in order to achieve the goal of strong economies. In order to maintain urban vitality within a city and a modern economy, the social interrelations between people and places must be managed whether solely by municipalities or with the aid of private entrepreneurs as in the case of a Build Operate Transfer contract. Today both the Black Market and the Forum des marchés have completed the operate phase of the BOT contract as they are both markets solely managed by the Adjame municipality. In Abidjan, the rapid construction of markets may be a phase that is past, however, the need to build a varied built environment with a diversity of buildings pertaining a diversity of uses is crucial to the city becoming an equitable and sustainable city.



Figure 21: People and vehicles at the Adjame market



Figure 22: Box stalls at the Forum des marchés

In urban planning, a holistic perspective is key to understanding challenges from start to finish. As a result, understanding the planning implications of research leads to greater insight into the

discipline from a perspective of methodology and a perspective of practice. The research endeavor has addressed a multitude of issues that have strong planning implications. Firstly, the analysis provides avenues towards finding frameworks that enable the longevity of West African urban markets. Indeed, this challenge is crucial to maintaining a socio-economic model of exchange that promotes thriving West African cities. Secondly, the research endeavor has provided reasons to persist in encouraging environmental health policies at the municipal level that lead to better management of markets on the ground. Thirdly, an anthropological approach is embedded in the work leading to an understanding of how the built environment contributes to the sociality and collective consciousness of a community. Furthermore, municipal management challenges are addressed in so far as dissecting the role public-private partnerships play in advancing economic development in rapidly urbanizing African cities. From an epistemological perspective, the research analyzes the ways in which complex socio-spatial mechanisms engender conceptual terminology in the field of urban planning specifically the term urban vitality.

Understanding urban planning issues in a granular way through the case study of the Adjame market does not negate that the built environment works in similar ways across borders, cities, and regions. In fact, lessons from Adjame market can be applied to other markets in West Africa as well as markets worldwide. The singular condition of the aforementioned process is that cultural context and socio-demographic realities are taken into account. While building a building in a city space is facile, integrating people and place in urban contexts such as markets demands complexity from the urban planner who must decide continuously how to best serve people in a myriad of spaces.

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Photographic images: Raissah Kouame